DOCUMENT RESUME

ED 025 154 EM 006 887

By- McKee, John M.

Dramatic Applications of Educational Technology in Corrections.

Pub Date [Jun 67]

Note- 7p.; Paper presented at Annual Conf. on Correctional Education (16th, Carbondale, Ill., June 5-7, 1967).

EDRS Price MF- $0.25 HC- $0.45

Descriptors- Behavior Change, *Correctional Education, Delinquent Rehabilitation, Educational Experiments, Educational Needs, *Individual Instruction, *Instructional Technology, Operant Conditioning, Productivity, *Programed Instruction, Rehabilitation, Rehabilitation Programs, Systems Approach, Vocational Education

Public offenders have special educational needs due to past histories of school failure, dropout, poverty, lack of home support, and an acquired aversion to formal education. Prison education programs, however, tend to follow traditional patterns of instruction. Educational or instructional technology deals with the problems of individualizing education on a mass basis, compensating for individual differences, and introduces the concept of self-management. Formerly referring to hardware, like projectors and teaching machines, educational technology now includes the systematic application of behavior principles to the learning process. Two major experimental projects, in academic education and in vocational training, are being conducted at the Draper Correctional Center. The first experiment uses "contingency management" techniques, employing individualized reinforcing events, to try to maintain a high level of learner productivity. A second experiment is designed to test if contingency management techniques can be used to prepare inmates for the General Educational Development Test for High School Equivalency. The purpose of a third experiment is to develop a training package to modify spoken English that can be used with other disadvantaged populations. Educational technology brings a systems approach to learning with the end process learning, not teaching. (CG)

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

ED025154

DRAMATIC APPLICATIONS OF EDUCATIONAL TECHNOLOGY IN CORRECTIONS*

John M. McKee, Ph.D.
Rehabilitation Research
Foundation
Draper Correctional Center
Elmore, Alabama 36025

The special educational needs of the public offender are well documented. He is scarred by a history of school failure and dropout; he has been embarrassed by poverty; he comes from a home that gave not even a modicum of support to his getting an education. In view of his acquired aversion to formal education, we correctional educators must employ the best of instructional talent and technology to give the prisoner a successful and reinforcing educational experience.

Yet, by and large, prison educational programs follow traditional patterns of instruction: lecture, chalkboard with the pupil demonstrating his knowledge (or lack of it), desk chairs, and grade-level groupings. Correctional education follows traditional patterns set down by elementary and secondary public education. And like public education, we have had much discussion of individualized education but have taken little action on a systematic basis.

Of course, one problem has been how to individualize instruction beyond grouping together the "red birds," "yellow birds," and "blue birds." Only in the past few years have we been able to individualize instruction on a mass basis--to tailor a curriculum to compensate for individual differences, to manage the learning contingencies of both group and individual learners so

ED025154

EM 006 887

*This paper was presented at the 16th Annual Conference on Correctional Education, Center for the Study of Crime, Delinquency and Corrections, Carbondale, Illinois, June 5-7, 1967.

that maximum productivity is achieved, and to introduce the concept of self-management in the learning process. These things are collectively called educational or instructional technology.

Frequently, the term educational technology is thought to mean only hardware--overhead projectors, carousel slides, educational TV, and teaching machines. Equipment of this sort does serve to facilitate instruction, and it can be of enormous assistance. But modern usage of the term also includes the systematic application of behavior principles to the learning process. As Robert F. Mager says it:

> The instructional technologist is familiar with the laws of nature relating to behavior change (principles of learning), and with their application. He is able to derive and describe instructional goals in forms that are usable by the learner. He can identify environmental characteristics that facilitate and inhibit the desired behavior changes. He can describe the characteristics of a wide variety of instructional aids and devices, and can compare these characteristics with goals to systematically identify those devices and aids most appropriate to a given situation. He can construct criterion instruments by which the success of his efforts can be measured.[1]

In the Draper educational experiments, we seek to employ some of the newest developments in educational technology and discover some new approaches of our own. We have two major experimental projects at Draper--one distinctly in the area of academic education and the other primarily in vocational training. The former is funded by the National Institute of Mental Health and the latter by the U. S. Departments of Labor and of Health, Education, and Welfare, under the Manpower Development and Training Act. While sub-experiments are being conducted in each of the major projects, the following are most representative:

---

[1] Robert F. Mager, "The Instructional Technologist," Educational Technology, Vol. VII, No. 9, May 15, 1967, pp 1-2.

Experiment I. Contingency Management

In an attempt to maintain a high level of learner productivity, using programmed instructional materials, this project is experimenting with techniques of "contingency management." Systematic management of learning contingencies permits precise analysis of the objects and events that are reinforcing for each learner; moreover, through the systematic arrangement and presentation of learning contingencies one can attain far more efficiency in learning by the student than is possible with conventional methods.

Besides increasing learning efficiency, there is a need in correctional education to discover and control variables that will maintain effective learning behavior for sustained periods of time. All of us are familiar with the "bugout" in our educational programs--the student who has a low span of attention, or the student who is looking for a "soft lick," who plays the "con" game with the educators. When this learner is held to a production schedule, he usually "bugs out"--quits, asks for a job change, says he's too nervous to keep his mind on anything, etc.

Our contingency management experiment was designed to solve the problem of procuring sustained productivity. Sixteen subjects (Ss) served in the experiment, which ran for a period of nine weeks. The amount of programmed instructional work to be done by each subject (S) was specified daily by means of a "performance contract." Although the amount was negotiable, the conditions of the experiment required S to increase his performance about 20 percent each week over a baseline measure taken during a three-week period just prior to the beginning of the experiment.

A "reinforcing event" (RE) was scheduled after completion of a specified part of the contract, so that throughout a single day it was possible to accumulate six break periods of 15 minutes each during which an RE could be taken by the student-subject.

The RE occurred in a special recreation room set aside for this purpose. Activity included coffee, magazines, games, the opportunity to type a letter, etc. Each day S chose from an "RE Menu" the events he wanted to engage in. The theory underlying the use of the RE is rooted in the learning principle that whenever a less pleasant response is followed by a rewarding response, the latter will reinforce the former. In the practical terms of our contingency management experiment, if learning English grammar is dull or boring to S, it will become less so when immediately followed by a trip to the RE room.

The programmed instructional materials used in the experiment were prescribed on an individual basis, but courses were primarily in the areas of language arts, math, and social studies. Only linear programs were used.

Careful records of time spent in study and of test results were kept by the contingency manager, along with productivity data.

The results of the experiment showed that under the conditions of contingency management, productivity, as measured by frame output, quadrupled. Other results are worthy of note. Number of tests taken doubled, percent of tests passed jumped from 71 to 80 percent. (Passing grade is 85 percent.)

Experiment II. Preparation for Passing the General Educational Development Test for High School Equivalency

In several of our earlier experiments we had learned the following:

(1) The GED test can be passed by over 90 percent of the inmates scoring an average grade placement of 10.5 on a standardized

achievement test. (The passing score in Alabama for the GED Test is a standard score of 35.)

(2) Reading skills are the skills most crucial to passing the GED Test.

(3) A person who places at the 8.0 grade level on a diagnostic reading test can pass the GED Test with 250 hours of programmed instruction designed to compensate for his deficiencies across the board. Sessions in reading improvement should be included.

While our data supports the above statements, our information is of a post hoc nature; therefore, we decided to test these statements out as hypotheses.

Fifteen youthful offenders at Draper Correctional Center are Ss in this experiment. Contingency management techniques are being employed with continuing good results. The crucial test of the validity of our hypotheses will be seen the day GED Tests are administered to each S.

Experiment III. Modification of Spoken English

Several years ago I congratulated a student-subject for making a high score on the final exam on a programmed English course--English 2600: "Billy, you did very well--you made 98! You are an English scholar!" Said Billy, "Thanks, Doc, this here English don't give me no trouble nohow." Being by nature a frustrated high school English teacher, this was more than I could bear. I said, "Billy, I'm starting an advanced seminar in spoken English. How about volunteering as an experimental subject for it?" "You bet, Doc, English is the onliest subject I like--them verbs and nouns and all!" To control my emotional fit, I recalled my psychological background long enough to

realize that here was a clearcut case of total absence of transfer of training or generalization of concepts, and that correct or standard spoken English would have to be taught directly, which we proceeded to do.

In the experimental seminar in spoken English, we began with sensitivity training, attuning the ear to listen discriminatingly and to analyze first another's speech, then one's own. We sought to train the subject in correct grammar, enunciation and pronunciation, and to widen vocabulary usage. After running three such seminars of about 20 sessions each, we are now formalizing the content and procedures into a training package. As for methodology, we are primarily employing operant conditioning techniques of behavior modification. Our purpose is to design a complete training package to improve spoken English rapidly.

Why are we working on this problem? Speech, like dress, tattoos, excessive drinking, job instability, and crime, marks the offender and handicaps his chances of succeeding in free society--getting a job and advancing in it, obtaining normal reinforcements available in the mainstream of social and economic life. The "stimulus value" that a person presents to the world naturally shapes the responses of that world to him. Thus, our goal is to modify the offender's stimulus value as it pertains to spoken English.

Although our interest is in the use of this speech modification package with offenders, we believe that it can be adapted to any disadvantaged population. Thus, we would view speaking standard or acceptable English as an essential step in economic and social mobility which is a goal of the anti-poverty program.

Educational technology is not new. As an applied science, it deals with the principles and practices of instruction and learning. Man has applied these principles for thousands of years, albeit in not too systematic a fashion. Perhaps we are talking more about a new approach to educational technology--a learning systems approach. One writer[1] in the field has pointed out the key elements in this new approach as follows:

> The end process is learning, not teaching. I cannot emphasize this distinction too strongly. Many of us have been so engrossed in our own roles as teachers that we have too often lost sight of whether or not learning really resulted.
>
> The process is achieved through a system. The system includes all of the equipment, procedures, facilities, program schedules, maintenance, texts, materials, and personnel required to produce the end result.
>
> The entire process must be validated. Only with validation can we be certain that the system does indeed attain the objectives originally set for it.

Learning systems are now being introduced to corrections. Examples are found at Draper Correctional Center, the National School for Boys, Cook County Jail, prisons in Michigan, California, and South Carolina. The cost of such programs is not low, but neither is the cost of crime. To do a quality educational job with special problem groups in our society, significantly more funds, personnel, equipment and research will have to be allocated. Progressive correctional leadership is realizing this fact and is now persuading the public and legislative bodies to move forward. Educational technologists: may their tribe increase!

---

[1] Shetler, Richard et al, "The Systems Approach to Education" a Symposium, Part I, Educational Technology, Spring 1967, p. 9.